

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [36] on page 8 with the following amended paragraph:

[36] However, when performing handwriting motions in the three-dimensional space, a user performs the handwriting motions while assuming that there is a virtual plane in the three-dimensional space, but the points actually appearing when handwriting tracks are segmented in predetermined time intervals do not correspond to the virtual plane the user has assumed. Fig. 6 is a view for representing tracks based on a user's handwriting motions in the three-dimensional space by use of points with reference to a virtual handwriting plane 600. Accordingly, the present invention produces a virtual handwriting plane 600 to recognize users' handwriting motions in the three-dimensional space as the handwriting motions in the two-dimensional plane. A process for determining a virtual handwriting plane 600 virtually in three-dimensional space can be obtained by expanding into the three-dimension a process for finding straight lines having the shortest distance in use of the linear regression method with respect to points on the two-dimensional plane.

Please replace paragraph [42] on page 10 with the following amended paragraph:

[42] If the parameters for a virtual handwriting plane are obtained, the control unit 140 recognizes a virtual plane having the shortest distances with respect to other points of three-dimensional tracks. Thereafter, the control unit 140 performs a process for projecting the respective points of the three-dimensional tracks onto the points nearest a virtual handwriting plane 600 as shown in Fig. 7. The nearest distance to the virtual handwriting plane 600 from the points of the three-dimensional tracks becomes scalar times the normal vector with respect to the

virtual handwriting plane 600 at respective points as shown in Fig. 8, so Equation 7 as follows
can be expressed:

[Equation 7]

$$P - P' = kN,$$